

FIG. 1

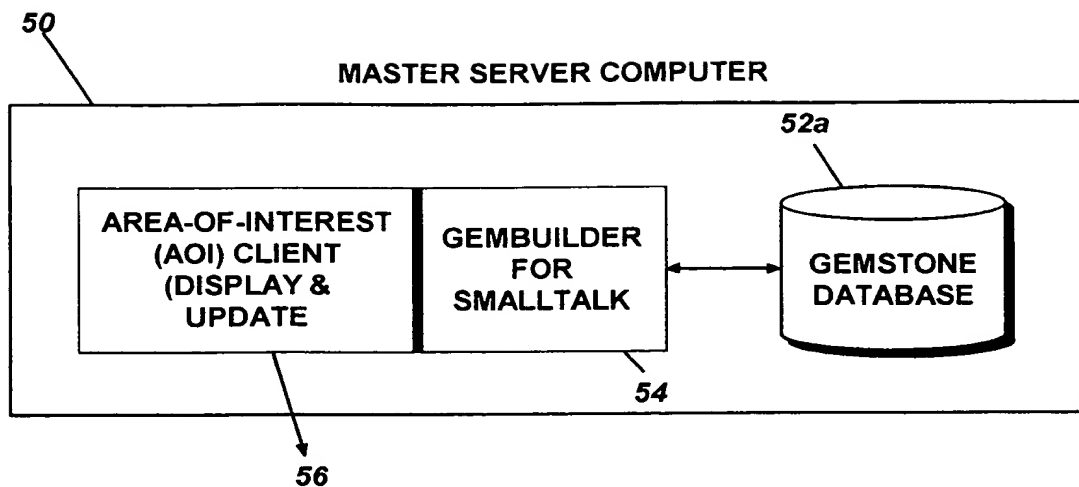


FIG. 2

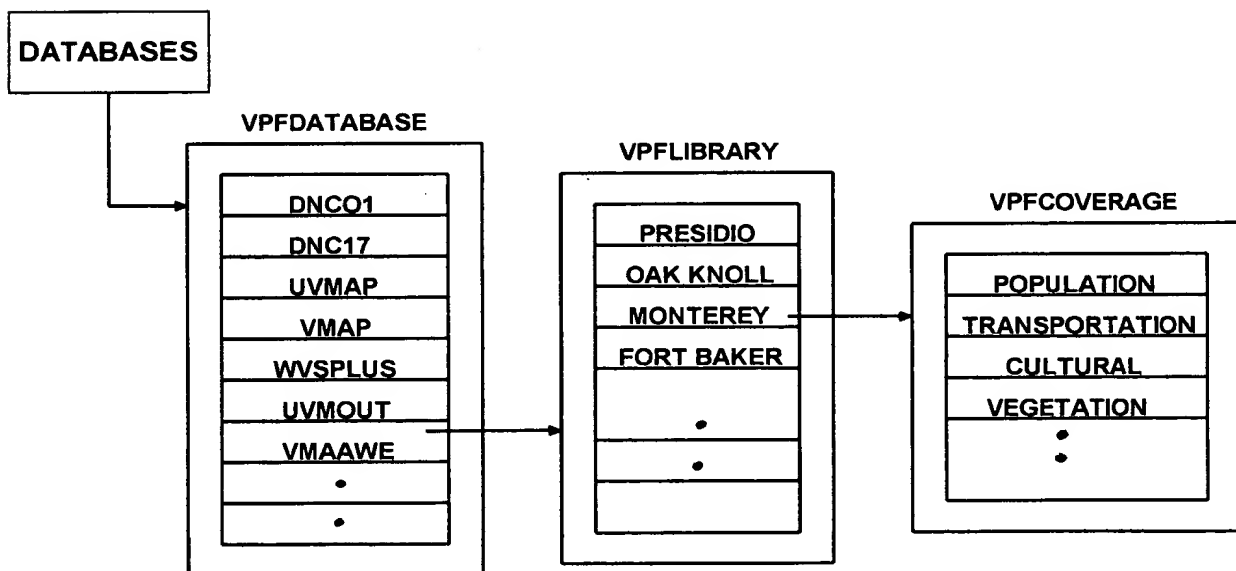


FIG. 3

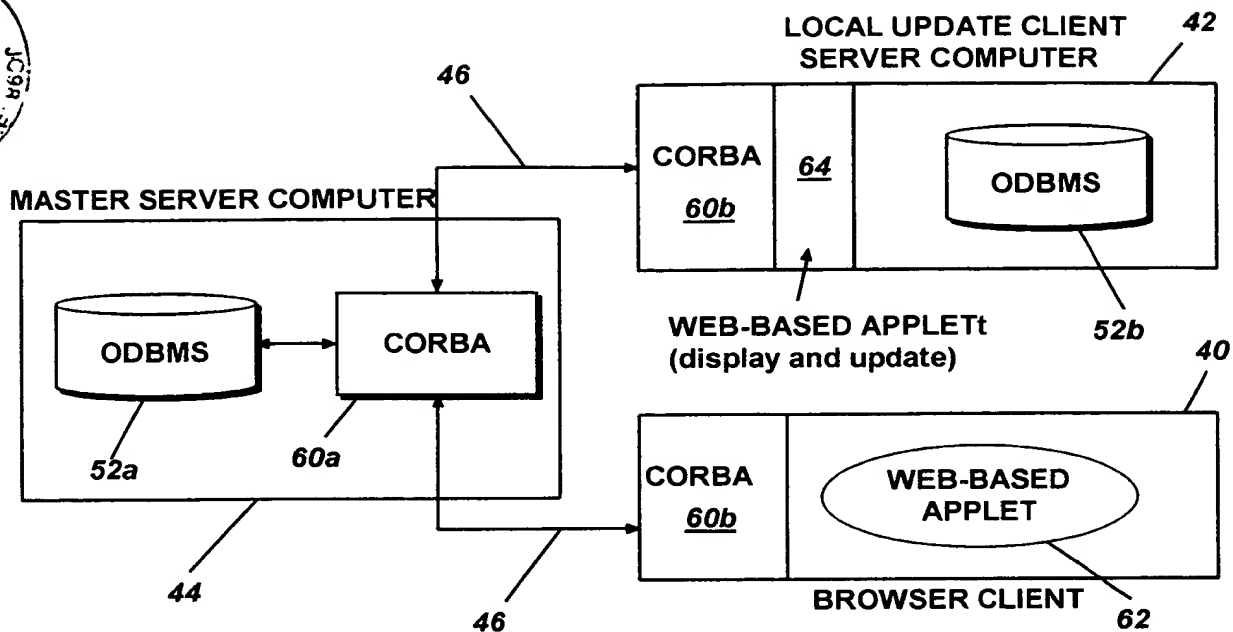


FIG. 4A

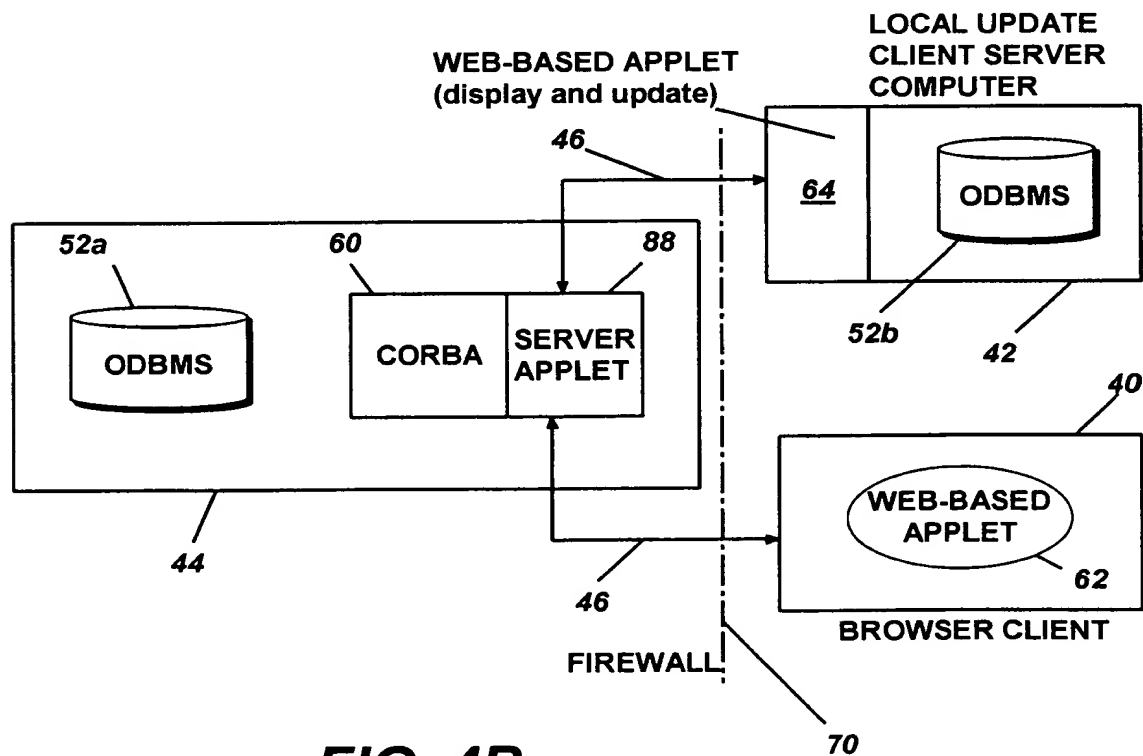


FIG. 4B

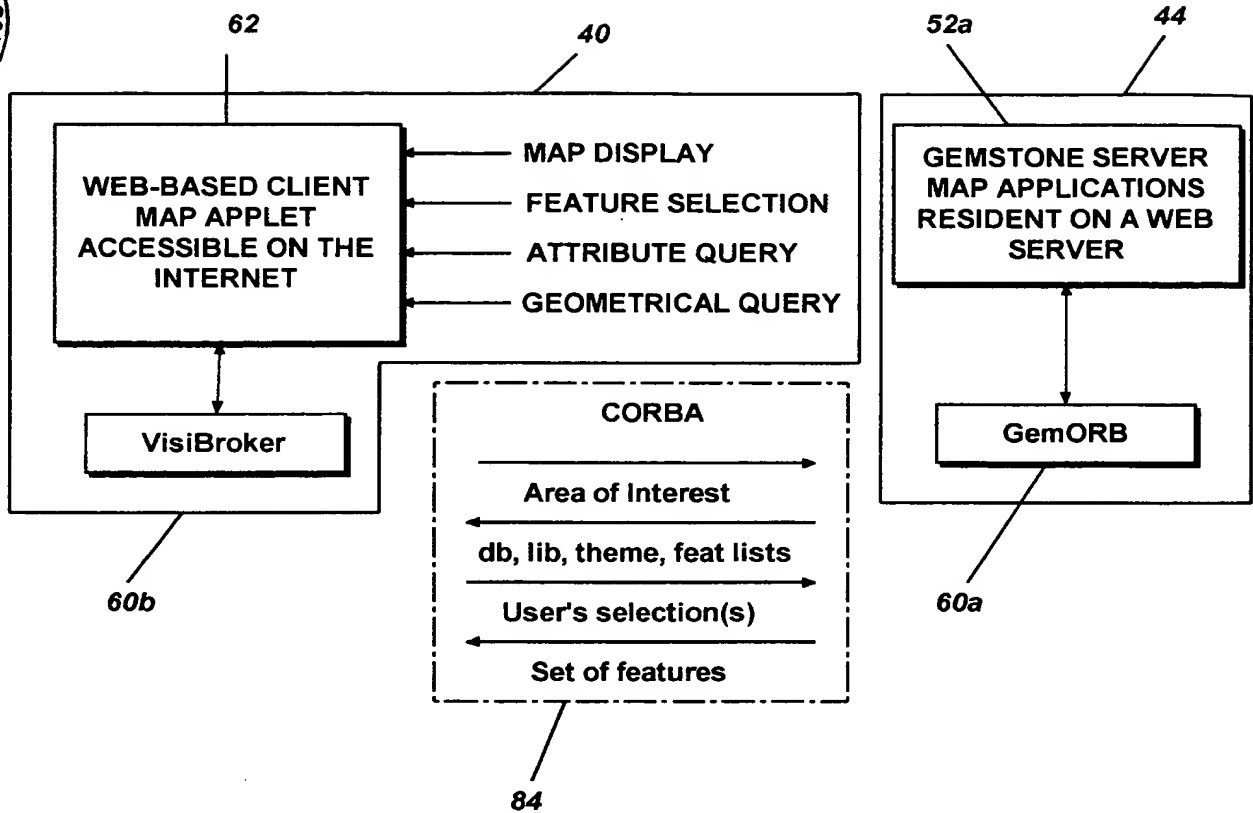


FIG. 5B

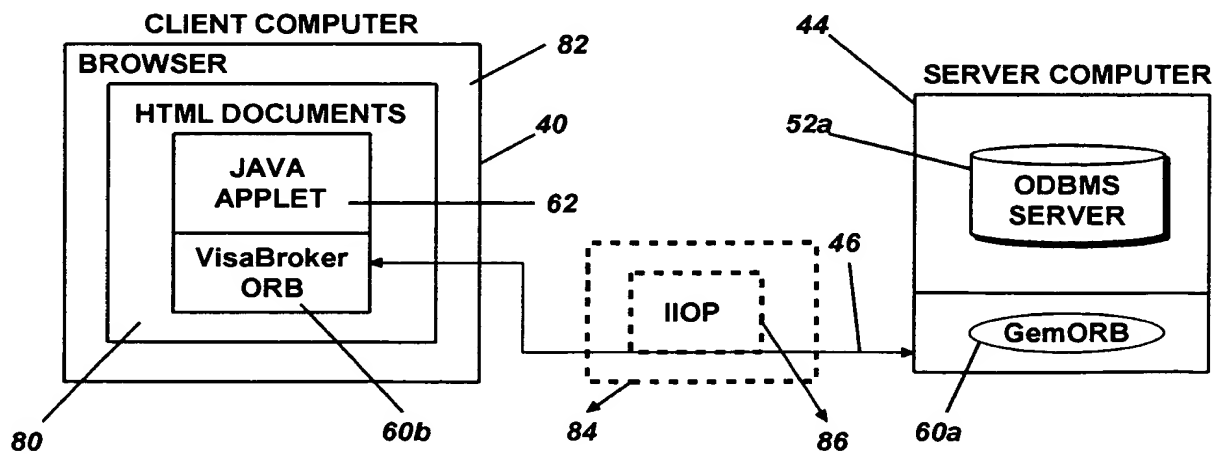
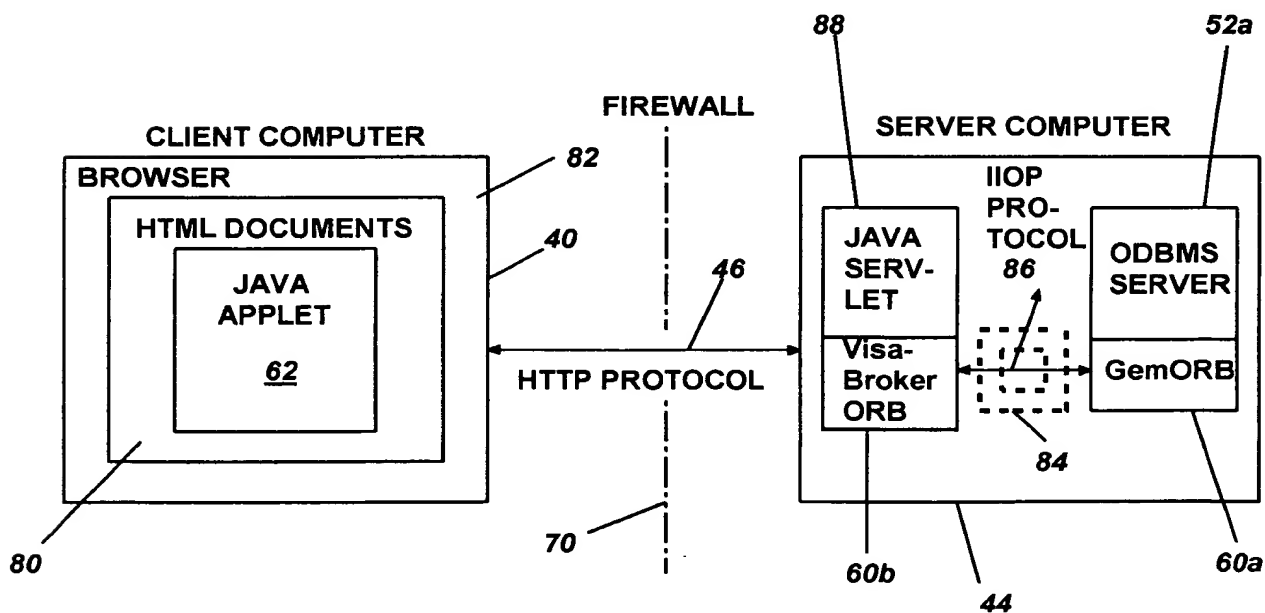
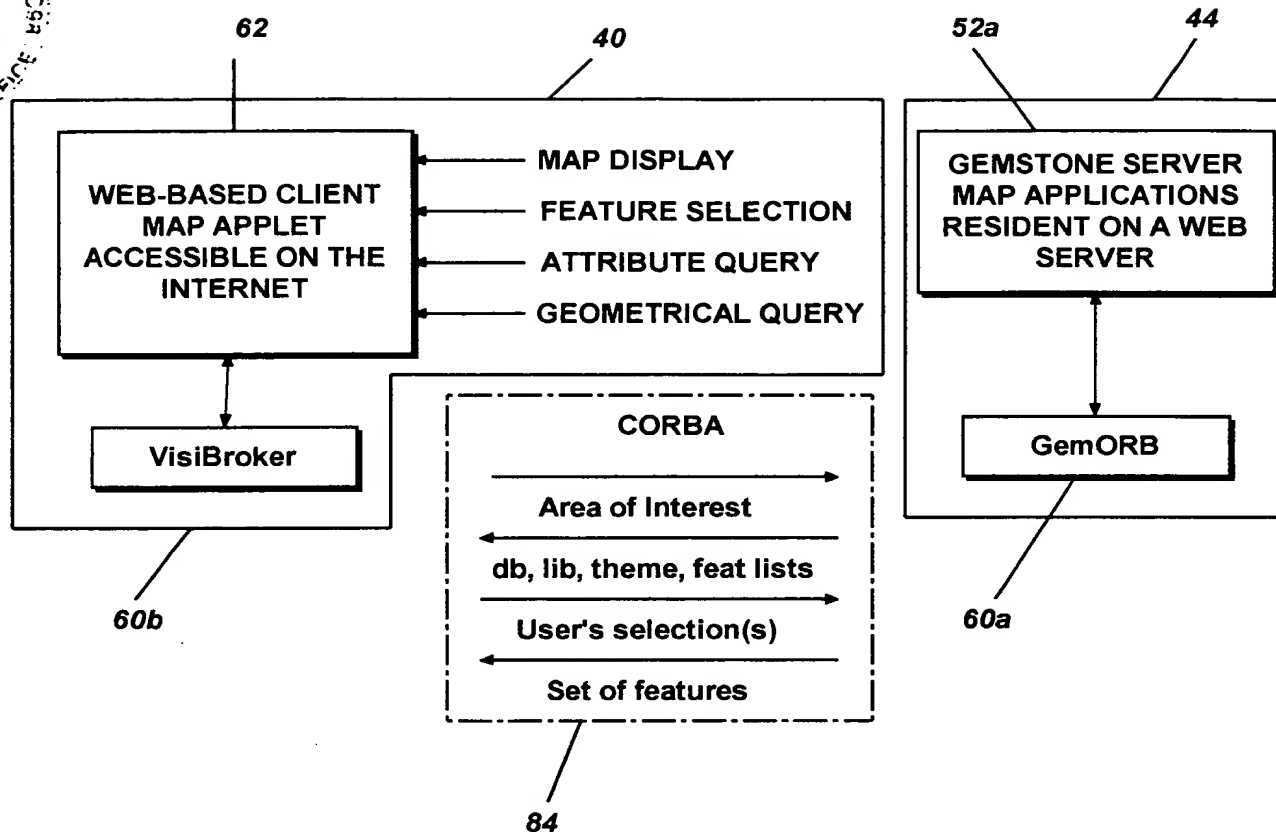


FIG. 5A



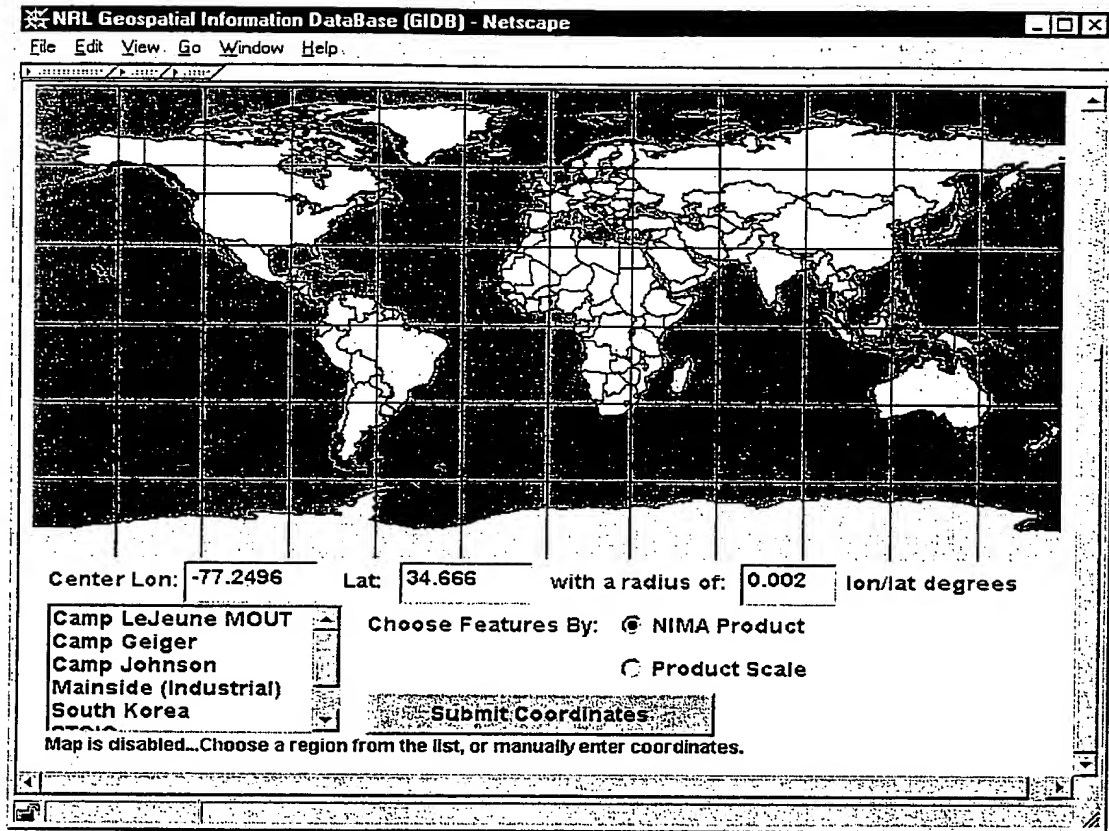


FIG. 7



NRL Geospatial Information DataBase (GIDB) - Netscape

File Edit View Go Communicator Help

Center Lat: Lon: with a radius of: lon/lat degrees

Selected region coordinates are Lat: 0.0 Lon: 0.0 [Show Data Regions](#)

Continent	Country	Region	City
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Pre-Defined AOIs

Region from DNC01
Region from DNC11
Region from DNC15 #1
Region from DNC15 #2
Region from DNC17

NIMA Products

DNC01
DNC02
DNC03
DNC04
DNC05

Choose Features By:

☐ Product Scale

☒ NIMA Product

[Submit Coordinates](#)

FIG. 8

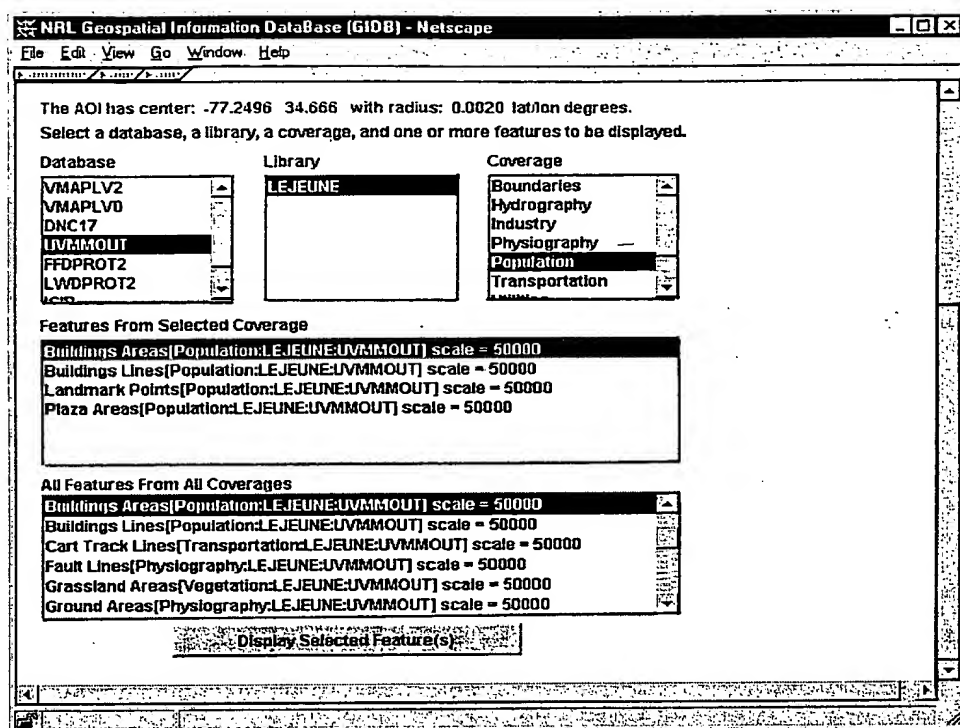


FIG. 9

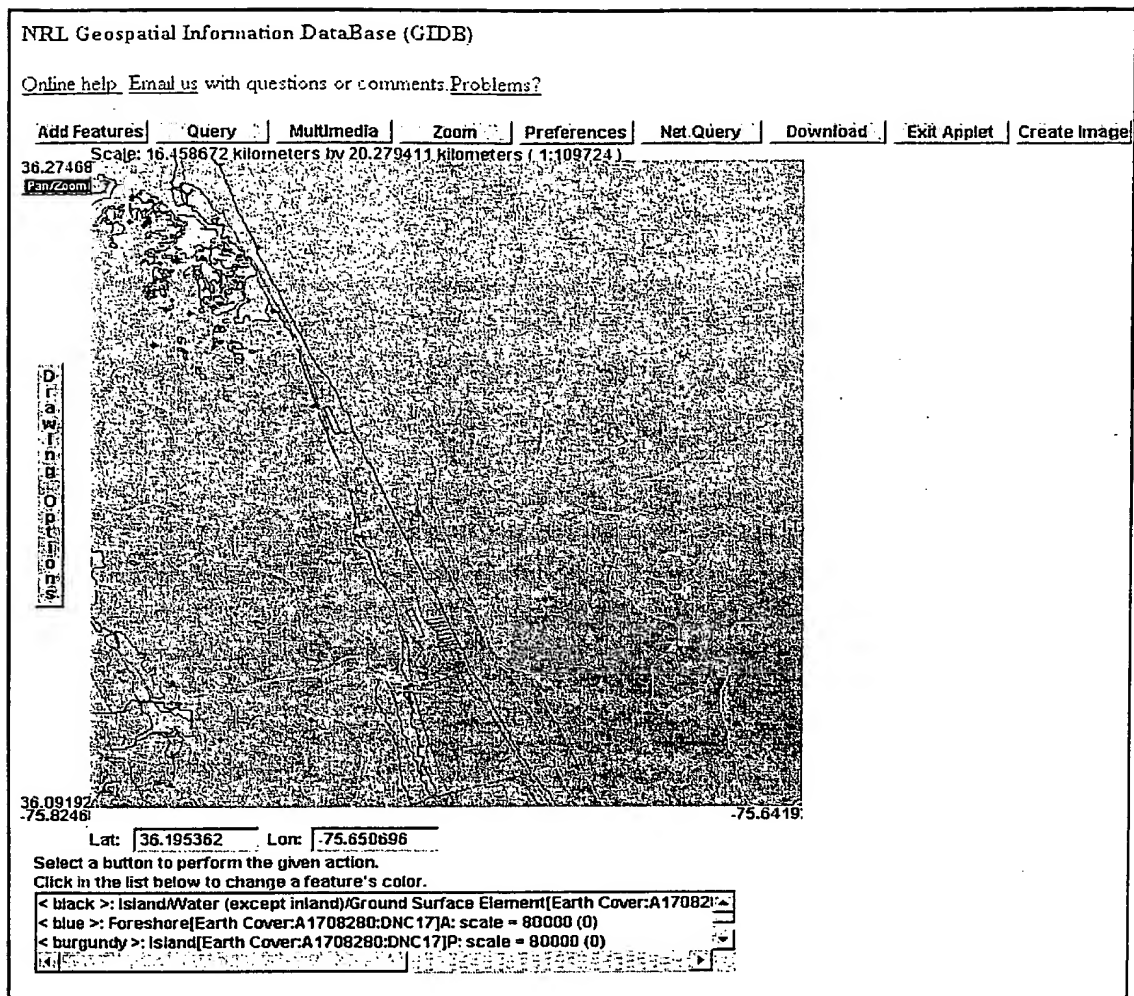
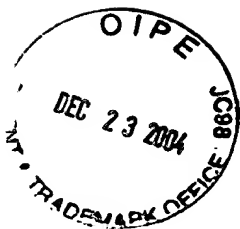


FIG. 10



Datasets **DNC 17[Edition 9: Eastern United States]**

Scale **A1708375[Currituck Beach Light to Wimbl]**

Features **Bottom Characteristics points[Hydrograph]**

Query **Q1: Bottom Characteristics points[Hydrog]**

Results for Selected Query

201	Bottom Characteristics points[Hydrography:A1708375]
198	Bottom Characteristics points[Hydrography:A1708375]
200	Bottom Characteristics points[Hydrography:A1708375]

Attributes for Selected Result

Secondary Material Characteristics -- Unknown
Material Composition Category -- Unknown
Material Composition Underlying -- Unknown
Underlying Material -- Unknown
FACC Code -- BF010: US-Bottom Characteristics UK-Quality of the
Physical Surface Characteristics -- Soft
Material Composition Secondary -- Unknown

[Click here for attribute level query](#)

Geometrical **Topological** **Clear** **Done**

Up Selected **Up All** **Delete Sel** **Delete All**

FIG. 11



Select Time Range

Start Time:

Year: 1980, 1981, 1982, 1983, 1984, 1985, 1986

Month: January, February, March, April, May, June

Day: 01, 02, 03, 04, 05, 06

Hour: 00, 01, 02, 03, 04, 05

End Time:

Year: 1995, 1996, 1997, 1998, 1999, 2000

Month: January, February, March, April, May, June

Day: 01, 02, 03, 04, 05, 06

Hour: 00, 01, 02, 03, 04, 05

Unsigned Java Applet Window

FIG. 12

Attribute Query

Feature Class: Power lines[Cultural Landmarks A1708375.DN]

Attribute: Overhead Clearance Category

Symbol:

Color: Attribute Based

9.100

18.299

30.000

Unsigned Java Applet Window

FIG. 13

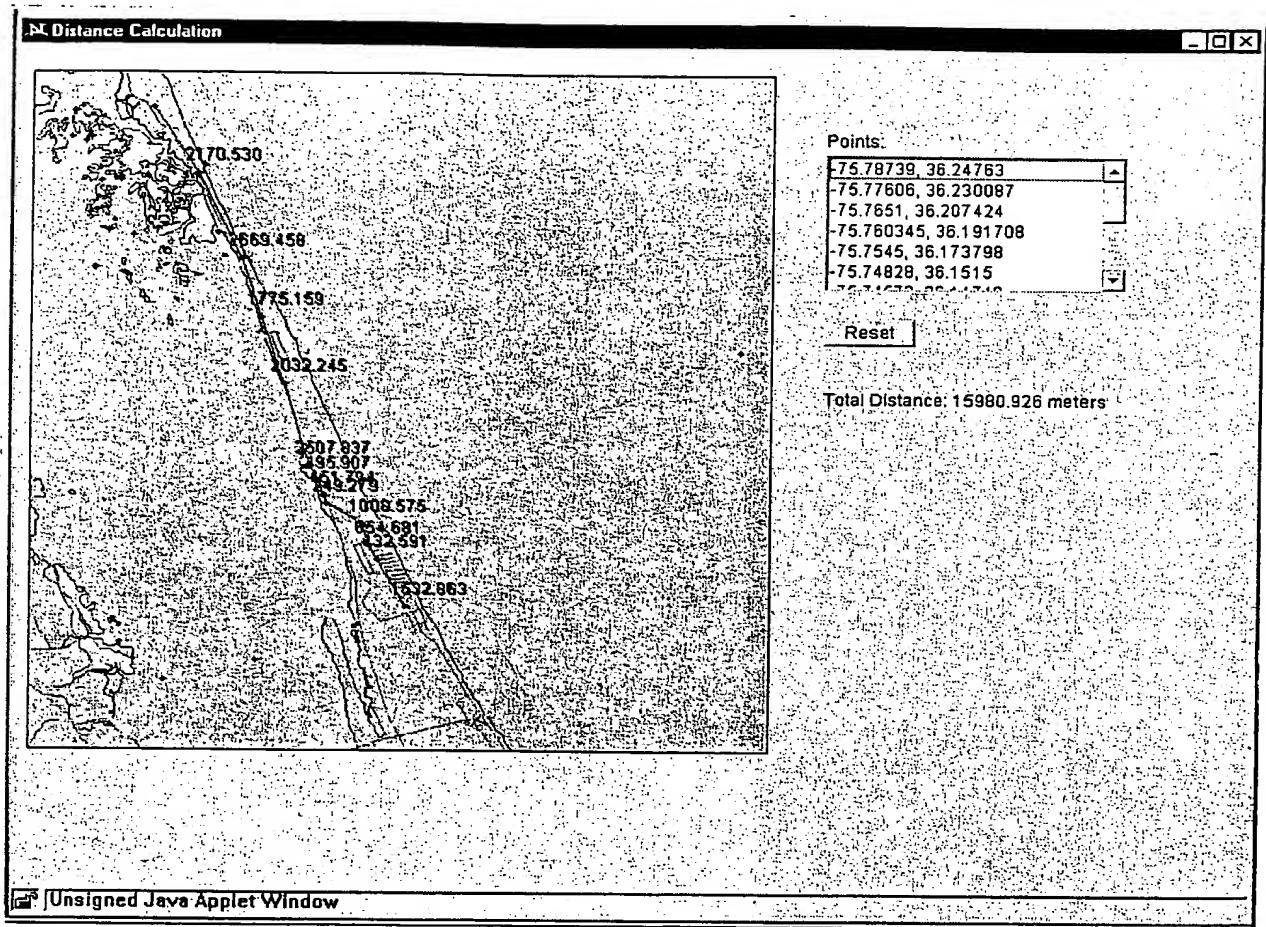
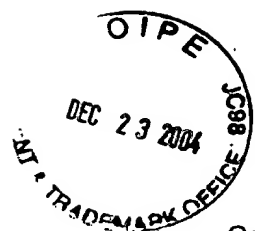


FIG. 14



```
GeoPoint gpPoint1 = (GeoPoint)vtrGeopoints.elementAt(i);
GeoPoint gpPoint2 = (GeoPoint)vtrGeopoints.elementAt(i+1);
double distance = gpPoint1.greatCircleDistance(gpPoint2) * 6000 * 0.3048; // returns nautical miles.
                                     multiply by 6000 for feet. multiply by 0.3048 to get meters.
```

```
public class GeoPoint{
```

```
    .
    .
    .
    .
```

```
public double greatCircleDistance(GeoPoint point2) {
    double nauticalMiles = 0.0f;
    double step1;
    double degreesPerRadian = 180.0 / Math.PI;
    double nauticalMilesPerDegree = 60.0;
    double lat1 = latInRadians();
    double lon1 = lonInRadians();
    double lat2 = point2.latInRadians();
    double lon2 = point2.lonInRadians();
```

```
    // Calculate step 1 in radians
    step1 = Math.acos(Math.sin(lat1) * Math.sin(lat2) +
        Math.cos(lat1) * Math.cos(lat2) * Math.cos(lon1 - lon2));
```

```
    nauticalMiles = step1 * degreesPerRadian * nauticalMilesPerDegree;
    return nauticalMiles;
}
```

```
    .
    .
    .
    .
}
```

FIG. 14A



Multimedia	Zoom	Preferences
30 sec Topographic		
Bird Migratory Routes		
Coastal Relief Model		
Coastal Research Amphibious Buggy at ERF		
Field Research Facility Area		
Main Laboratory at Field Research Facility		
NGDC 5 min elevation and bathy merge		
NGDC Sediment Data		
NGDC Topographic, 5 min		
NOAA Navigation Buoys		
NOAA Oceanographic Buoys		
NOAA Oceanographic Buoys, 400km		
NOS Coastal Surveys, 15 sec		
NOS Coastal Surveys, 3 sec		
Pier at Field Research Facility		
Political/County Boundaries		
Political/State Boundaries		
Satellite overview with shoreline		
Shoreline overlay with satellite imagery		
TOPEX/ERS Sea Surface Temp		
Tower at Field Research Facility		
USGS Primary Roads		
USGS Railroads		
USGS Topographic, 30 sec		
hsugrid.jpg		
hsupts.jpg		
negravty.jpg		
video clips		

FIG. 15

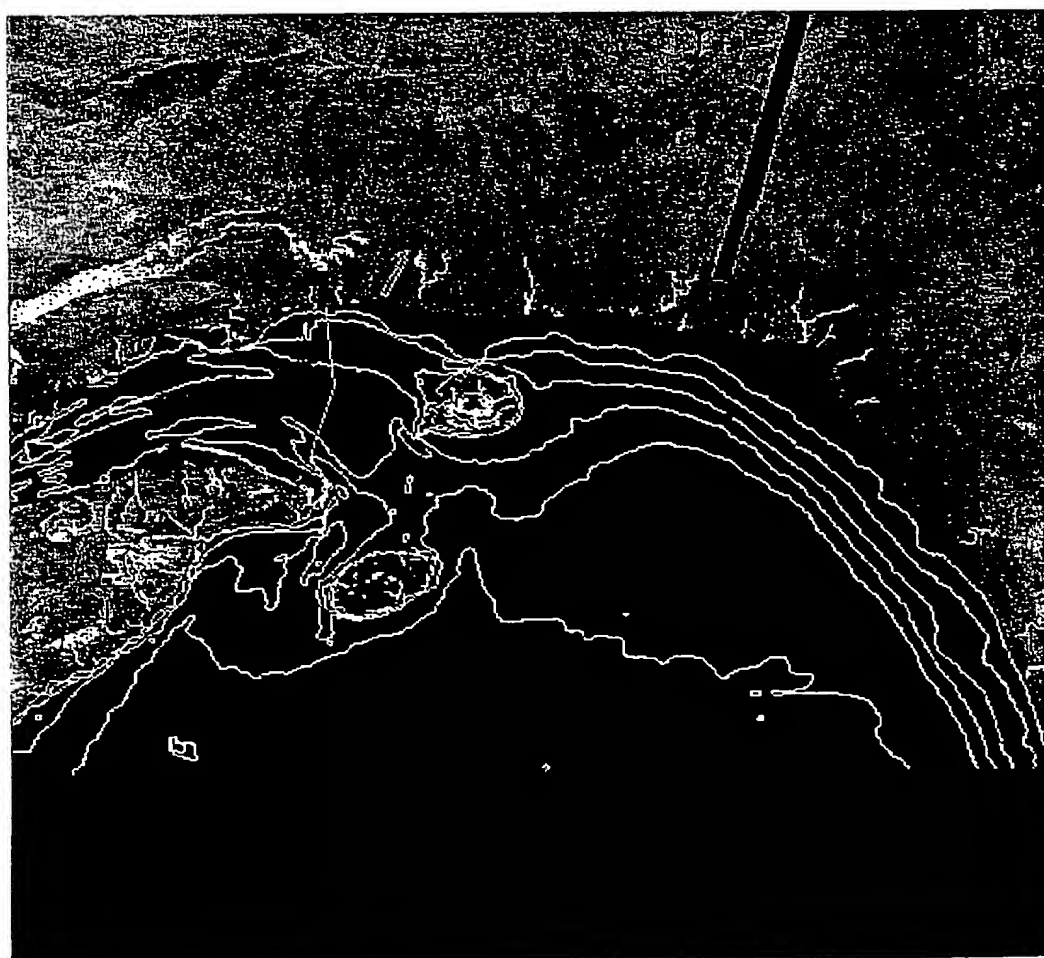
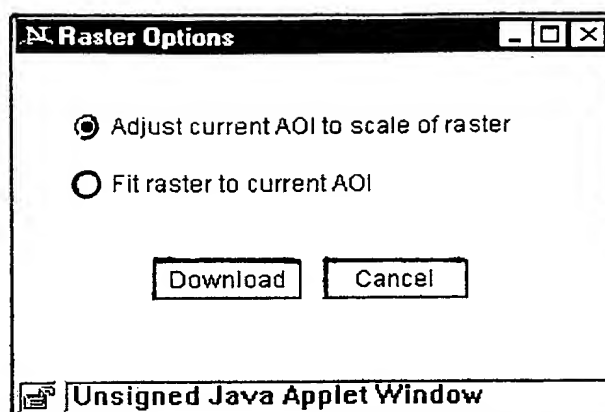


FIG. 16

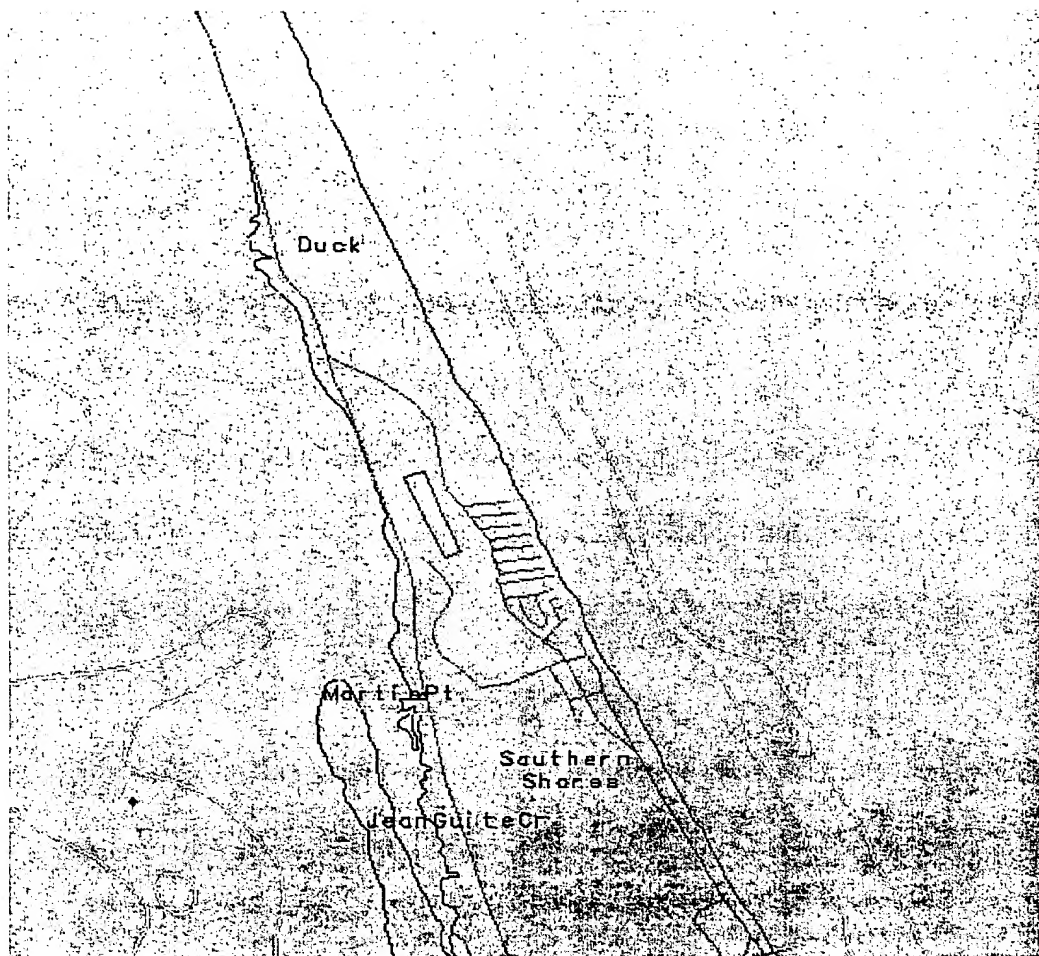


FIG. 17

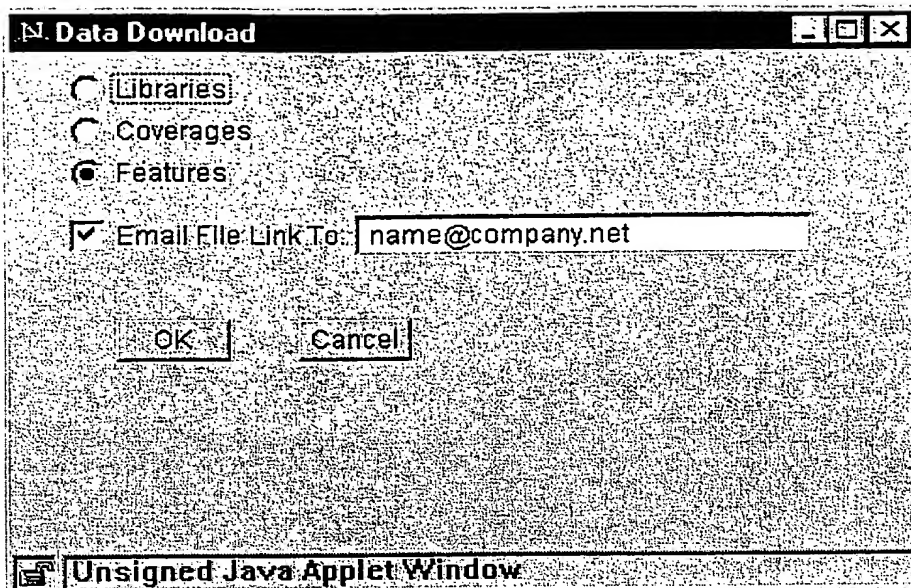


FIG. 18A

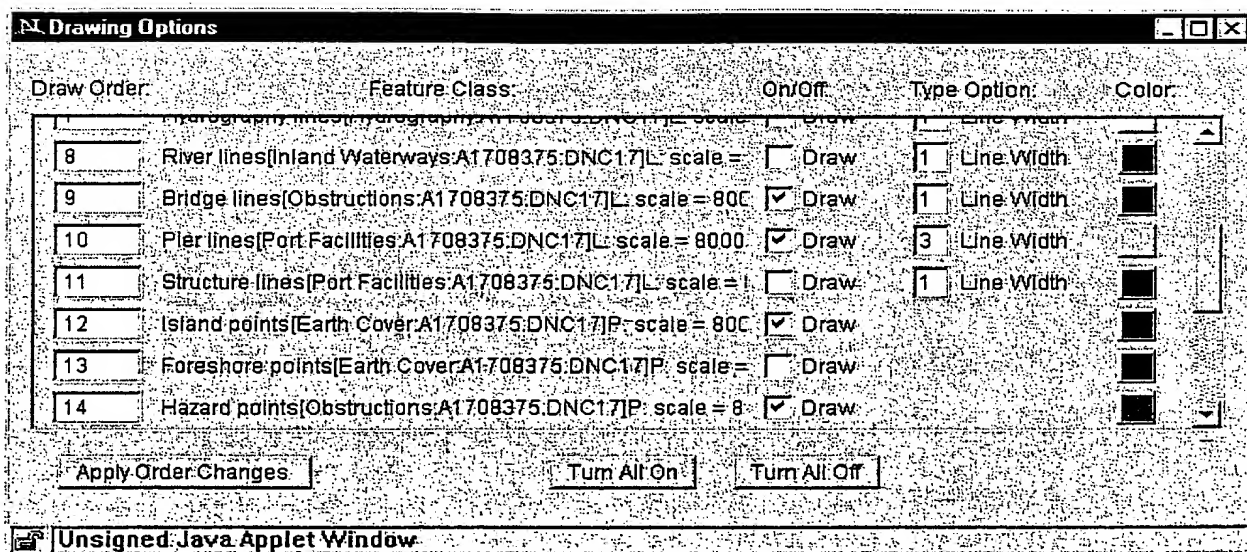


FIG. 18B

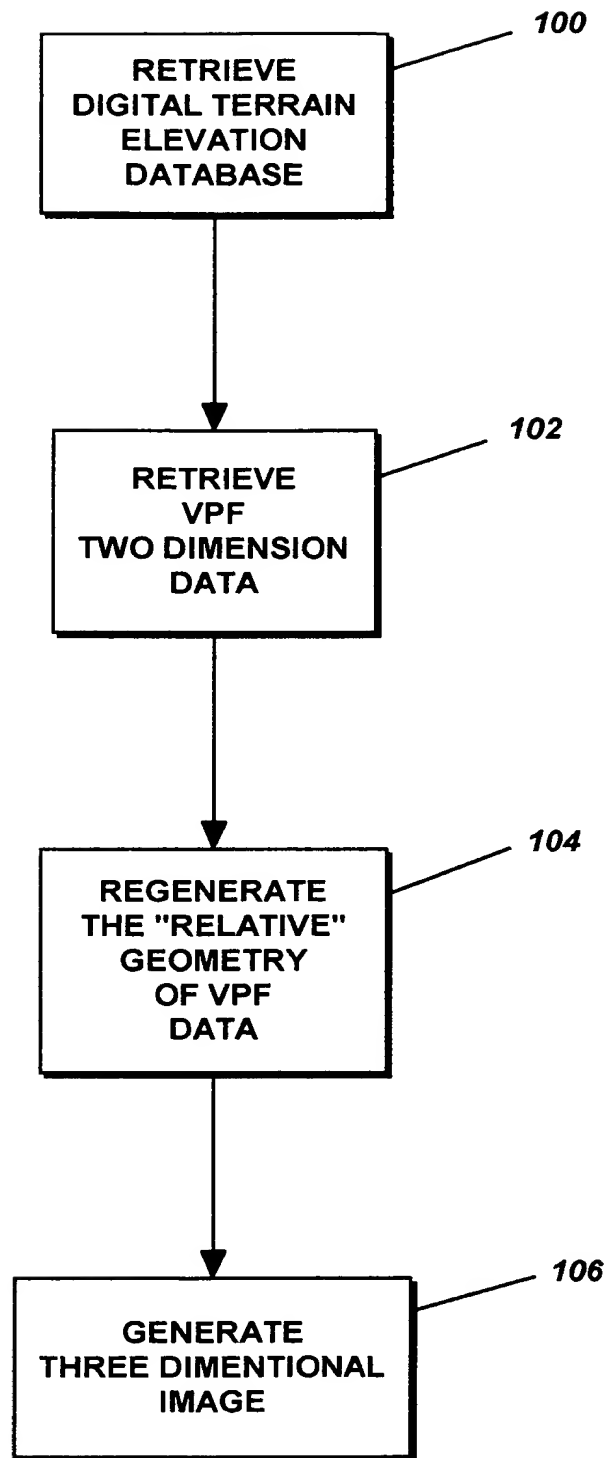
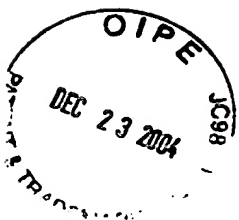


FIG. 19



VRMLObject
VRMLBuilding
VRMLHydroArea
VRMLVegArea
VRMLLineFeature
VRMLBarrierLine
VRMLHydroLine
VRMLTransLine
VRMLUtilityLine
VRMLPointFeature

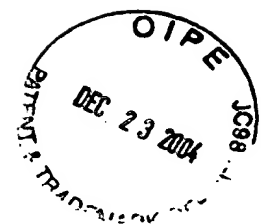
FIG. 20

FIG. 21

STRUCTURE SHAPE OF ROOF
Flat
ssr = 41
Pitched
ssr = 42

VPF	VRML
#bldpopa	#VRMLBuilding
#bldinda	#VRMLBuilding
#plazaa	#VRMLPlazaArea
#lakeresa	#VRMLHydroArea
#inshorel	#VRMLHydroLine
#watrcrsl	#VRMLHydroLine
#roadl	#VRMLTransLine
#trackl	#VRMLTransLine
#barrierl	#VRMLBarrierLine
#polbndl	#VRMLBarrierLine
#telel	#VRMLUtilityLine
#obstrp	#VRMLPointFeature
#landmrkp	#VRMLPoint Feature

FIG. 22



```
LOD {  
  level [  
    Inline {url "FireHydrant1.wrl"}  
    Inline {url "FireHydrant2.wrl"}  
    Group {children [ ] }  
  range [ 100, 200 ]  
  center 0 0 0}
```

FIG. 23

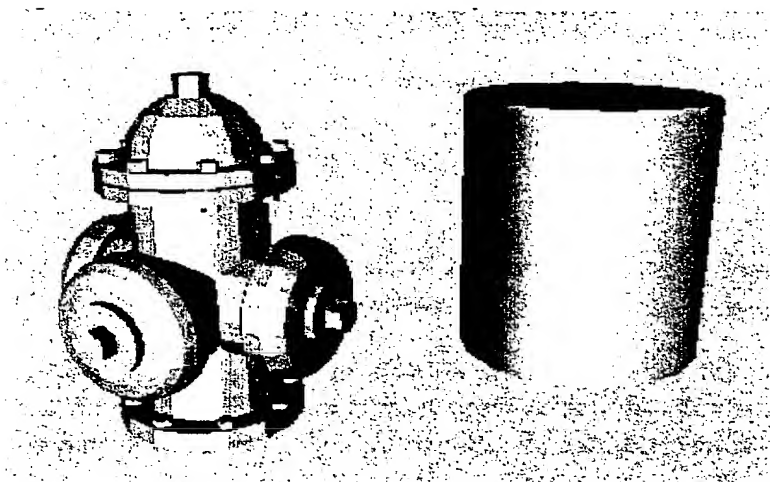


FIG. 24

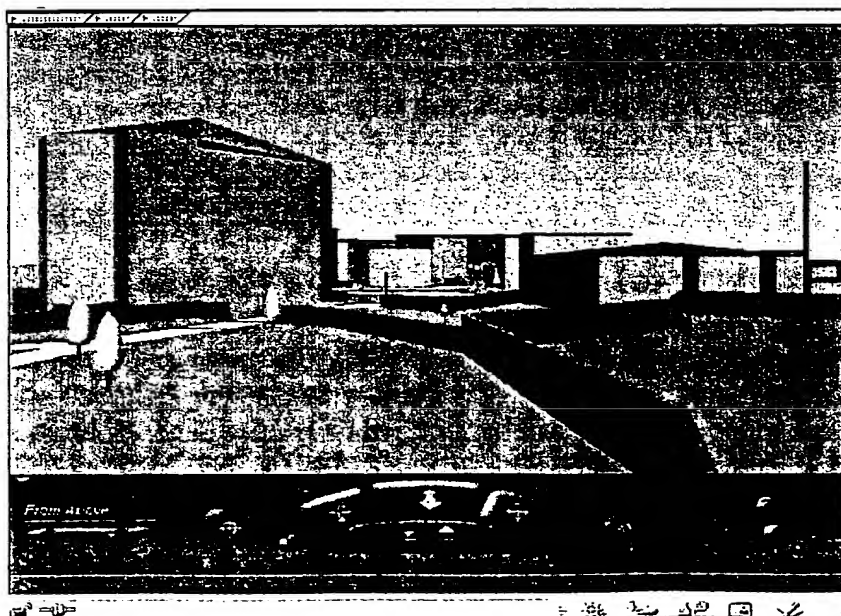


FIG. 25

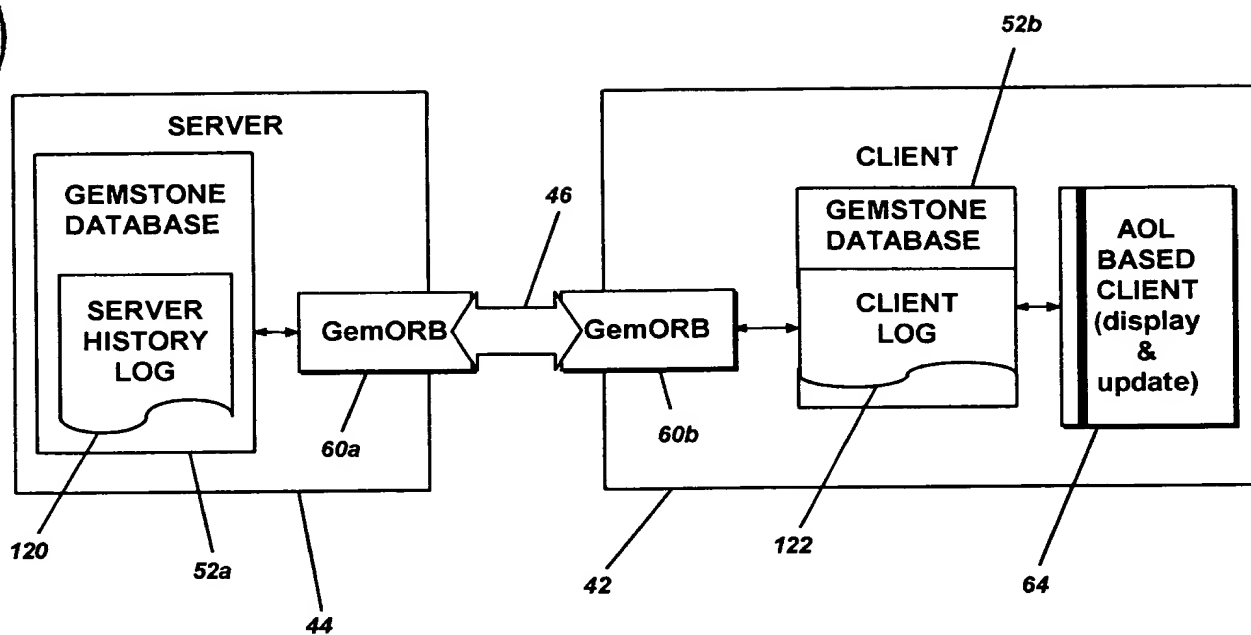


FIG. 26

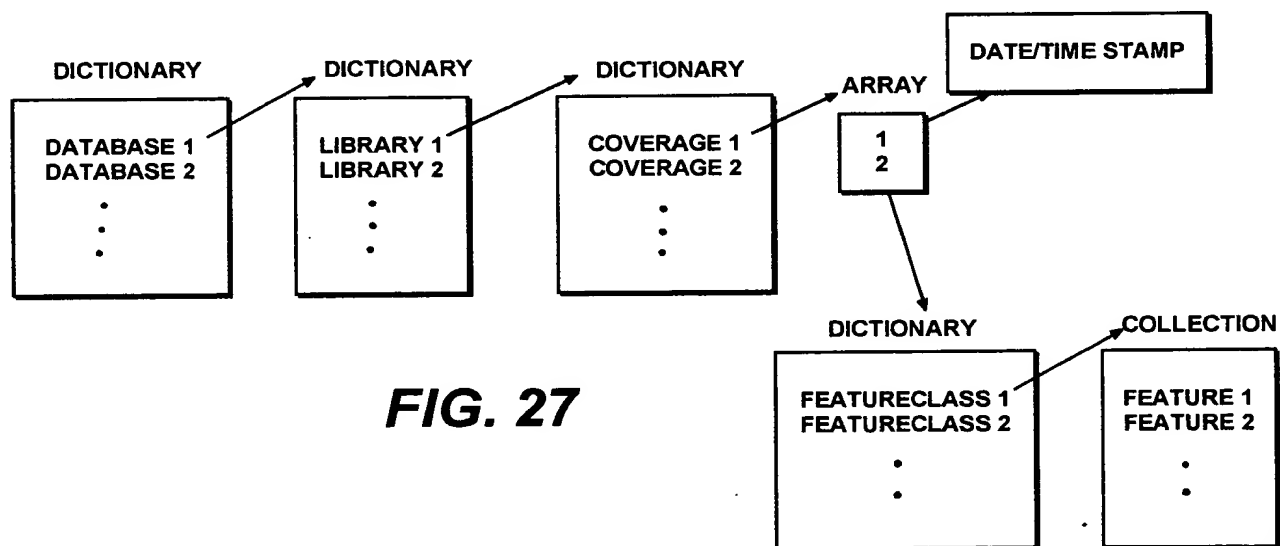


FIG. 27

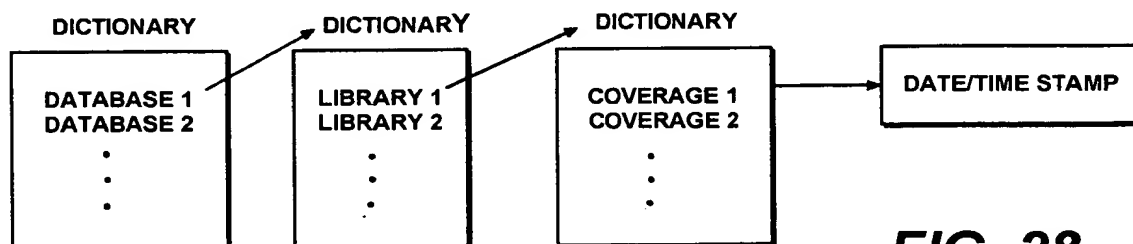


FIG. 28

OIP E
DEC 23 2004
TRANSACTIONAL SECURITY

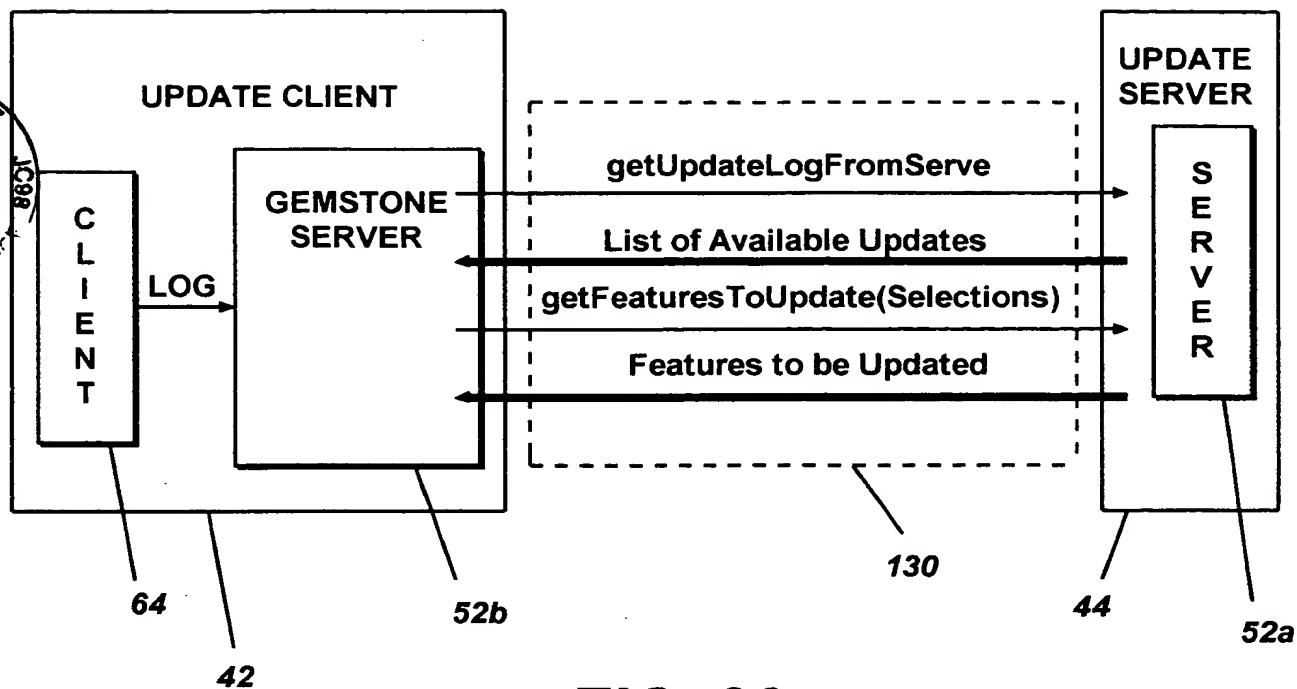


FIG. 29

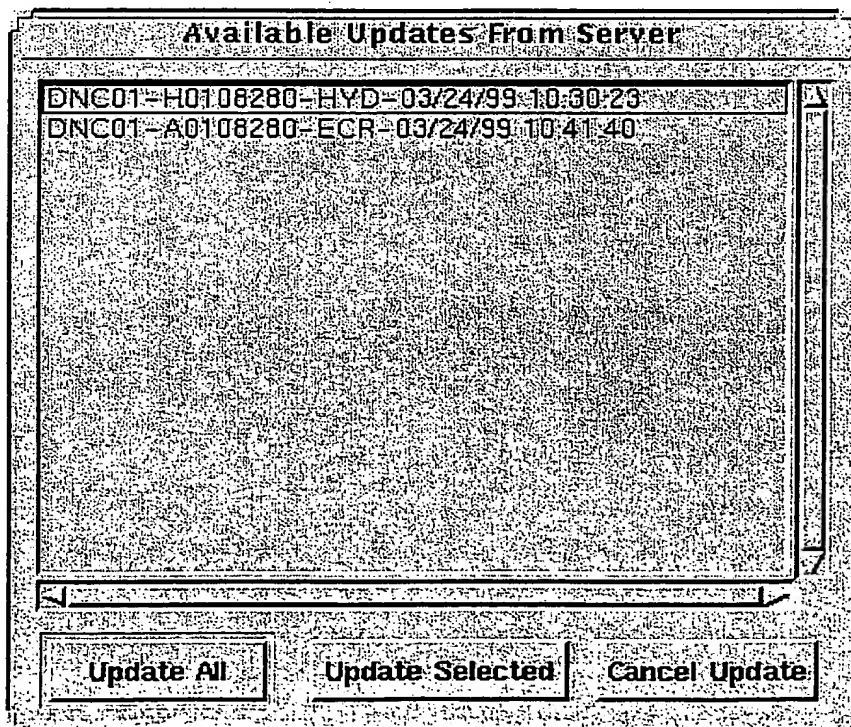


FIG. 30

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